Abstract

An automated system adaptation technique for computer systems, networks and subsystems generally and, more particularly, for data storage systems. The invention programmatically designs, configures and manages a

5   system, such as a data storage system. This is accomplished by performing a sequence of steps in an iterative loop, including analyzing the operation of the system under a workload, generating a new design based on the analysis and migrating the existing system to the new design. By systematically exploring a large design space and developing designs based on analyses of the workload,

10   the invention generates designs that are improved in comparison to conventional design techniques. By programmatically repeating these tasks, the invention causes the system to converge to one that supports the workload without being over-provisioned.